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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,395	12/03/2003	Chen Shih-Tsung	23724-07834	4644
758	7590	11/01/2005	EXAMINER	
FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041			CARPIO, IVAN HERNAN	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/727,395

Applicant(s)

SHIH-TSUNG, CHEN

Examiner

Ivan H. Carpio

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites that "the first computer card generates greater heat during operation than the **first** card", there are two possible interpretations of this claim both of which render the claim indefinite: 1<sup>st</sup> if by "first card" applicant is referring to the "first computer card" then we have indefinite language since the a computer card can not generate more heat than itself, 2<sup>nd</sup> if a different first card is meant then we have a lack of antecedent basis for not previous introducing the "first card".

### **Examiners Interpretation**

With regards to claim 1 examiner believes that a typo has been overlooked and that the claim should read "the first computer card generates greater heat during operation than the second computer card". Claim will be examined with this correction.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicants prior art (apa Fig. 1 and Background of the invention) in view of Radford (US Patent 6118670)

With respect to claim 1 the applicants prior art (apa) teaches a motherboard assembly (Fig. 1) comprising a motherboard (Fig.1, element 4), a socket for receiving a central processing unit mounted on the motherboard, a first slot (Fig. 1, element 2) for receiving a first computer card, a second slot (Fig. 1, element 1) for receiving a second computer card, wherein the second slot is positioned between the central processing unit and the first slot. The apa does not teach that the first computer card generates greater heat during operation than the second computer card. Radford teaches that higher heat generating components should be placed at larger distances from each other (column 1, lines 19-23). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the slots arranged so that the first computer card generates more heat than the second computer card, because doing so creates a larger distance between the two hottest components (the first computer card and the CPU, apa page 2 paragraph [0005]) and thus eases the problem of heat dissipation between components (Radford column 1, lines 19-23).

With respect to claim 2 and 3, the apa teaches all of the limitations including that one of the slots is an AGP (Fig.1, element 1) slot and the other slot is a PCI slot (Fig.1, element 2). The apa does not teach that the 1<sup>st</sup> slot is the AGP slot and the 2<sup>nd</sup> slot is the PCI slot. It would have been obvious to one of ordinary skill in the art to make the 1<sup>st</sup> slot the AGP slot and the 2<sup>nd</sup> slot the PCI slot because doing so because doing so creates a larger distance between the two hottest components (the AGP and the CPU,

apa page 2 paragraph [0005]) and thus eases the problem of heat dissipation between components (Radford column 1, lines 19-23).

With respect to claim 4 and with all the limitations of claim 1, the apa teaches that the motherboard (paragraph [0003] the last sentence) is for use in a small form factor computer.

With respect to claim 5 and with all the limitations of claim 1, the apa teaches the first slot (Fig. 1, element 2) is located adjacent to an edge of the motherboard and oriented parallel to the edge.

With respect to claim 6 and with all the limitations of claim 1, the apa teaches that no additional slot is located between the first slot (Fig. 1) and an edge of the motherboard adjacent to the edge.

With respect to claim 7 and with all the limitations of claim 1, the apa teaches that an AGP slot and a PCI slot and that a first slot (Fig. 1, element 2) is located adjacent to an edge of the motherboard oriented parallel to the first slot, wherein no other slot is located between the first slot and the edge, the first and second slots (Fig. 1, element 1) are mounted on the motherboard parallel and adjacent to each other. The apa does not teach that the 1<sup>st</sup> slot is the AGP slot and the 2<sup>nd</sup> slot is the PCI slot. It would have been obvious to one of ordinary skill in the art to make the 1<sup>st</sup> slot the AGP slot and the 2<sup>nd</sup> slot the PCI slot because doing so because doing so creates a larger distance between the two hottest components (the AGP and the CPU, apa page 2 paragraph [0005]) and thus eases the problem of heat dissipation between components (Radford column 1, lines 19-23).

With respect to claim 8 and with all the limitations of claim 7, the applicant teaches motherboard further comprises (Fig. 1) an input/output module containing a plurality of ports for connecting the computer to external devices, the input/output module located adjacent to an edge of the motherboard perpendicular to the edge of the motherboard that is adjacent to the first slot; a power supply module located adjacent to an edge of the motherboard opposite the edge of the motherboard that is adjacent to the first slot; a memory module for receiving a memory card; and a chipset mounted on the motherboard between the memory module and the socket.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent 6324075 discloses a motherboard with AGP and PCI slots and cooling means.

### ***Conclusion***

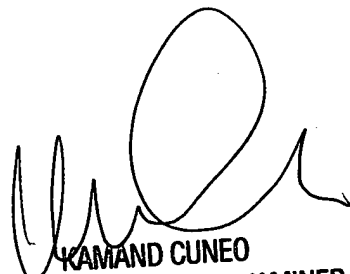
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ivan H. Carpio whose telephone number is 571-272-8396. The examiner can normally be reached on M-R 6:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2841

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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